3. Please amend page 2, line 44, as follows (changes from previous version to the rewritten version are shown in Appendix A where underlines indicate the additions and brackets indicate the deletions):

A3

The root section of the turbine blade is designed to fit within precise tolerances upon a circular rotor. Because of the curvatures of the mating surface of the root section of the turbine blade and the mating section of the circular rotor, the machining of the root section of the turbine blade requires convex movements of the form cutter tool (9) and the rotating of the rotary table (7) which holds the root section of the turbine blades. The form cutter (9) travels on a convex line (center line, See Figure 5) from point A to point L following convex path (E+R), the form cutter spins and the rotary table simultaneously rotates from angle -Q° to angle +Q°, (See Figure 5) this operation can be also approached at point L and finished at point A.

4. Please amend page 3, line 1, as follows (changes from previous version to the rewritten version are shown in Appendix A where underlines indicate the additions and brackets indicate the deletions):

NE

The root section of the turbine blade is designed to fit within precise tolerances upon a circular rotor. Because of the curvatures of the mating surface of the root section of the turbine blade and the mating section of the circular rotor, the machining of the root section of the turbine blade requires convex movements of the form cutter tool (9) and the rotating of the rotary table (7) which holds the root section of the turbine blades. The form cutter (9) travels on a convex line (center line, See Figure 5) from point A to point L following convex path (E+R), the form cutter spins and the rotary table simultaneously rotates from angle -Q° to angle +Q°, (See Figure 5) this operation can be also approached at point L and finished at point A.

5. Please amend page 3, line 16, as follows (changes from previous version to the rewritten version are shown in Appendix A where underlines indicate the additions and brackets indicate the deletions):

A4

The position of the rotary form cutter is moved closer to the root section as is required to cut the three identical cut surfaces which form holding hooks. Reference to Figure 5 explains the movement of the form cutter. As shown in Figure 5, radiuses R, R+D1, and R+D2 are radiuses on the part and are depicted by Figures 1, 2, 3, and 4.

6. Please amend page 3, line 37, as follows (changes from previous version to the rewritten version are shown in Appendix A where underlines indicate the additions and brackets indicate the deletions):

A5

R = Radius on first hook (dimension from Figure 5) holding hook;

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A

7. Please amend page 3, line 38, as follows (changes from previous version to the rewritten version are shown in Appendix A where underlines indicate the additions and brackets indicate the deletions):

A6

E = Distance from center of rotary table to first hook holding hook;

8. Please amend page 5, line 5, as follows (changes from previous version to the rewritten version are shown in Appendix A where underlines indicate the additions and brackets indicate the deletions):

A7

Figures 2, 3, 4 and 5, describe one machining cutting pass for machining the curvature on the hooks as determined by the controlling programming in use.

9. Please amend page 5, line 38, as follows (changes from previous version to the rewritten version are shown in Appendix A where underlines indicate the additions and brackets indicate the deletions):

A8

8. Roughing hook's shape and tang fits (milling)

10. Please amend page 7, line 4, as follows (changes from previous version to the rewritten version are shown in Appendix A where underlines indicate the additions and brackets indicate the deletions):

A9

The example of CAD was used as an example only. Rather, the path of the tool which will always be the same regardless of what method is used to find the needed coordination points, angles and radius the sum of E + R. See Figure 5 and it is this that is the claimed invention.

IN THE CLAIMS

11. Please amend the claims as follows (changes from the previous version to the rewritten version are shown in Appendix B where underlines indicate additions and brackets indicate deletions):

A10

1. A method of determining machining instructions for milling machinery comprising at least a three-axis computer numerical control milling machine during machining of a work piece to machine precise concave and convex surfaces within a metal block, said method comprising, in combination, using a machine having a spinning form cutter and a rotary table, the surfaces of the work piece being defined by a plurality of programmed instructions for said computer numerical control milling machine obtained by trigonometric analysis of required curvatures of the surfaces and movements of said spinning form cutter and said rotary table, said movement of said spinning form cutter being in a convex path and said movement of said rotary table being to rotate simultaneously from a plus rotation angle to a minus rotation angle and, alternatively, from a minus rotation angle to a plus rotation angle, said programmed instructions determined by said trigonometric analysis of a diagram of required concave and convex surfaces of resulting root section of a turbine blade and movements of said spinning form cutter and rotary table, said root section having at least a first hook as a first holding hook.

11